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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/529,835 05/09/00 RONDEAU

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EXAMINER

IM52/0913

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1300 I STREET NW
WASHINGTON DC 20005

PURIT, A
ART UNIT

PAPER NUMBER

1751
DATE MAILED:

09/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/529,835

Applicant(s)

RONDEAU, CHRISTINE

Examiner

ANIL K PURI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 32-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 32-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claims 2-8 and 32-77 are pending in this application. Preliminary amendment entered in this application on paper No. 5. Accordingly claims 1 and 9-31 are canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections, set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-8, 32-50, 54-57 and 61-77 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rondeau et al [U.S. 6,001,135] in view of Saphakkul et al [EP 0,312,343]. Rondeau teaches a ready to use composition for the oxidation dyeing hair comprising in a medium at least one oxidation base in combination with at least one selected cationic direct dye and at least one oxidizing agent as well as dyeing process. (See col.1 lines 25-31). Rondeau further teaches cationic direct dye selected from the compound (I) as claimed in claim 32 (see col.2 lines 22-30) in which D represents a nitrogen atom or the -CH group, R1 and R2 each represent a hydrogen atom a C1-C4 alkyl radical which may be substituted with a -CN, -OH or -NH2 radical, or form, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated or nitrogenous, which may be substituted with one or more C1-C4 alkyl radicals or a 4'-aminophenyl radical. R3 and R'3 each independently represent a hydrogen or halogen atom selected from chlorine, bromine, iodine and fluorine, or a cyano, C1-C4 alkoxy or acetyloxy radical. X- represents an anion preferably selected from chloride;

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represents an anion preferably selected from chloride; methylsulphate and acetate as claimed in claim 33 (see col. lines 47-48). A represents a group selected from the structures A1 to A19 as claimed in which R4 represents a C1-C4 alkyl radical which may be substituted with a hydroxyl radical, and R5 is a C1-C4 alkoxy radical, with the proviso that when D represents -CH, A represents structure A4 or A13 and R3 is not an alkoxy radical, then R1 and R2 do not simultaneously denote a hydrogen atom. Cationic direct dye of formula (I) are selected from the compounds corresponding to structure (I1-I54) as claimed in claim 2-3(see col.10 lines 63-67 and col.11-17). Prior art further teaches the cationic direct dye of formula (I) present in a concentration ranging from approximately 0.001 to 10% by weight relative to the total weight of the ready-to-use dye composition and more preferably from 0.05 to 2% by weight relative to the total weight of the ready -to-use dye composition as claimed in claim 36-37 (see col.21 lines 25-32). Rondeau also teaches the medium suitable for dyeing comprises water or of a mixture of water and at least one organic solvent in order to dissolve the compounds which would not be sufficiently soluble in water as claimed in claim 45 (see col. 22 lines 10-14). Composition further has the pH ranges from 5-12 as claimed in claim 46-47 (see col.21 lines 33-36). Rondeau further teaches dyeing composition also has oxidation base selected from p-phenylenediamine as claimed in claim 48 (see col.8 lines 3-27). The oxidation base preferably present in the concentration ranging from 0.0001 to 10% by weight relative to the total weight of the ready -to-use dye composition as claimed in claim 49-50 (see col.21 lines 19-24). Rondeau also teaches the oxidizing agent present in the dye composition is selected from oxidizing agents used conventionally in

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oxidation dyeing and preferably from hydrogen peroxide, urea peroxide, alkali metal bromates and persalts such as perborates and persulphates as claimed in claims 54-57 (see col. 21 lines 14-19). Claims 61-72 are drawn to the method of dyeing hair using above said composition. The prior art of Rondeau '135 col.22 lines 60-67 and col.23 lines1-3 discloses the similar method of dyeing hair.

Claims 73-77 are drawn to kit or multicomponent system for dyeing hair, which comprises couplers, oxidation bases, quaternary ammonium salt and enzyme. Therefore a person having ordinary skill in the art would be motivated to select the known ingredients of kit which would have been obvious.

Rondeau also teaches basifying agents including aqueous ammonia and alkaline carbonates but does not teach quaternary ammonium salt as claim.

Secondary reference of Saphakkul in analogous art teaches : a product for treating hair for conditioning and dyeing hair in order to darken it. (See page 2 lines 5-6) Prior art further teaches composition comprises quaternary ammonium chlorides having at least one long chain (C12-C22) alkyl group. Specific salts includes cetyltrimethylammonium chloride, oleyl dimethylbenzylammonium chloride and stearyl trimethylammonium chloride as claimed in claim 38-42 (see page 2 lines 60-63) Therefore, in view of teaching of secondary reference of Saphakkul, one having ordinary skill in the art would be motivated to modify the primary reference of Rondeau by using quaternary ammonium salts. Such modification would be obvious because one would expect that the use of quaternary ammonium salts as taught by secondary reference would be similarly useful and applicable in dyeing composition.

Claims 51-53 and 58-60 are rejected under 35 U.S.C. §103(a) as being unpatentable over Rondeau in view of Saphakkul in further view of Aaslyng et al [WO 9719998].

Rondeau and Saphakkul teaches the features as described above, the combination of these references however fails to teach laccase enzyme.

Aaslyng teaches a dyeing composition, which comprises oxidation base and couplers, and in addition contain laccase enzyme as claimed in claim 58(see abstract). Aaslyng also teaches the enzymes to replace the conventional hydrogen peroxide oxidizer in the hair coloring processes to solve the problem of hair damage by hydrogen peroxide (see page 2 line 22). Aaslyng further teaches modifiers that may include m-diamine, m-aminophenols or polyphenols as claimed in claim 51-53 (see page 8 lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the laccase of Aaslyng to the composition of Rondeau and Saphakkul because such incorporation would provide less damage to the hair as taught by Aaslyng.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANIL K PURI whose telephone number is 703/605-4427. The examiner can normally be reached on 8:30 AM TO 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703)-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are

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703/305-3599 for regular communications and 703/305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703/308-0661.

AKP
September 7, 2001

Lorna M. Douyon
LORNA M. DOUYON
PRIMARY EXAMINER